

Amended application

FPLEM-201123-C-107A DHC-5091

Revised March 23, 2017

RECEIVED: 11/23/20	REVIEWER: DM	TYPE: DHC	APP NO: pDM2033051221
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ABOVE THIS TABLE FOR OCD DIVISION USE ONLY

NEW MEXICO OIL CONSERVATION DIVISION
 - Geological & Engineering Bureau -
 1220 South St. Francis Drive, Santa Fe, NM 87505

**ADMINISTRATIVE APPLICATION CHECKLIST**

THIS CHECKLIST IS MANDATORY FOR ALL ADMINISTRATIVE APPLICATIONS FOR EXCEPTIONS TO DIVISION RULES AND REGULATIONS WHICH REQUIRE PROCESSING AT THE DIVISION LEVEL IN SANTA FE

Applicant: FAE II Operating, LLC **OGRID Number:** 329326
Well Name: Arnott Ramsay NCT-B #8 **API:** 30-025-26280
Pool: Jalmat (Oil) **Pool Code:** 33820

SUBMIT ACCURATE AND COMPLETE INFORMATION REQUIRED TO PROCESS THE TYPE OF APPLICATION INDICATED BELOW

1) **TYPE OF APPLICATION:** Check those which apply for [A]

A. Location - Spacing Unit - Simultaneous Dedication

☐ NSL

☐ NSP (PROJECT AREA)

☐ NSP (PRORATION UNIT)

☐ SD

B. Check one only for [I] or [II]

[I] Commingling - Storage - Measurement

☒ DHC

☐ CTB

☐ PLC

☐ PC

☐ OLS

☐ OLM

[II] Injection - Disposal - Pressure Increase - Enhanced Oil Recovery

☐ WFX

☐ PMX

☐ SWD

☐ IPI

☐ EOR

☐ PPR

2) **NOTIFICATION REQUIRED TO:** Check those which apply.

A. ☐ Offset operators or lease holders

B. ☐ Royalty, overriding royalty owners, revenue owners

C. ☐ Application requires published notice

D. ☒ Notification and/or concurrent approval by SLO

E. ☐ Notification and/or concurrent approval by BLM

F. ☐ Surface owner

G. ☐ For all of the above, proof of notification or publication is attached, and/or,

H. ☐ No notice required

FOR OCD ONLY

☐

Notice Complete

☐

Application
Content
Complete

3) **CERTIFICATION:** I hereby certify that the information submitted with this application for administrative approval is **accurate** and **complete** to the best of my knowledge. I also understand that **no action** will be taken on this application until the required information and notifications are submitted to the Division.

Note: Statement must be completed by an individual with managerial and/or supervisory capacity.

David Schellstede

Print or Type Name

Signature

Date

Phone Number

David@FAEnergyus.com

e-mail Address

District I
1625 N. French Drive, Hobbs, NM 88240

District II
811 S. First St., Artesia, NM 88210

District III
1000 Rio Brazos Road, Aztec, NM 87410

District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources Department

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, New Mexico 87505

Form C-107A
Revised August 1, 2011

APPLICATION TYPE
☒ Single Well
☐ Establish Pre-Approved Pools
EXISTING WELLBORE
☒ Yes ☐ No

APPLICATION FOR DOWNHOLE COMMINGLING

FAE II Operating, LLC

11757 Katy Fwy. Ste. 1000, Houston, TX 77079

Operator
Arnott Ramsay NCT-B

8

Address
N-32-25S-37E

Lea

Lease
329326

Well No.
326919

Unit Letter-Section-Township-Range
30-02S-26280

County
X

OGRID No. _____ Property Code _____ API No. _____ Lease Type: ☐ Federal ☐ State ☐ Fee

DATA ELEMENT	UPPER ZONE	INTERMEDIATE ZONE	LOWER ZONE
Pool Name	Jalmat		Langlie Mattix
Pool Code	33820		37240
Top and Bottom of Pay Section (Perforated or Open-Hole Interval)	2,735' – 3,260'		3,337' – 3,570'
Method of Production (Flowing or Artificial Lift)	Artificial Lift		Artificial Lift
Bottomhole Pressure (Note: Pressure data will not be required if the bottom perforation in the lower zone is within 150% of the depth of the top perforation in the upper zone)			
Oil Gravity or Gas BTU (Degree API or Gas BTU)	35 API / 1395 BTU		35 API / 1395 BTU
Producing, Shut-In or New Zone	Producing		Producing
Date and Oil/Gas/Water Rates of Last Production. (Note: For new zones with no production history, applicant shall be required to attach production estimates and supporting data.)	See Attached Date: Rates:	Date: Rates:	See Attached Date: Rates:
Fixed Allocation Percentage (Note: If allocation is based upon something other than current or past production, supporting data or explanation will be required.)	Oil Gas 19 % 86 %	Oil Gas % %	Oil Gas 81 % 14 %

ADDITIONAL DATA

Are all working, royalty and overriding royalty interests identical in all commingled zones?
If not, have all working, royalty and overriding royalty interest owners been notified by certified mail?

Yes ☒ No _____
Yes _____ No _____

Are all produced fluids from all commingled zones compatible with each other?

Yes ☒ No _____

Will commingling decrease the value of production?

Yes _____ No ☒

If this well is on, or communitized with, state or federal lands, has either the Commissioner of Public Lands or the United States Bureau of Land Management been notified in writing of this application?

Yes ☒ No _____

NMOCD Reference Case No. applicable to this well: _____

Attachments:

- C-102 for each zone to be commingled showing its spacing unit and acreage dedication.
- Production curve for each zone for at least one year. (If not available, attach explanation.)
- For zones with no production history, estimated production rates and supporting data.
- Data to support allocation method or formula.
- Notification list of working, royalty and overriding royalty interests for uncommon interest cases.
- Any additional statements, data or documents required to support commingling.

PRE-APPROVED POOLS

If application is to establish Pre-Approved Pools, the following additional information will be required:

List of other orders approving downhole commingling within the proposed Pre-Approved Pools
List of all operators within the proposed Pre-Approved Pools
Proof that all operators within the proposed Pre-Approved Pools were provided notice of this application.
Bottomhole pressure data.

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE M Bates

TITLE Engineering Tech

DATE 11/23/20

TYPE OR PRINT NAME Marshall Bates

TELEPHONE NO. (832) 241-8080

E-MAIL ADDRESS Marshall@FAEnergyus.com

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December 1, 2020

Mr. Dean McClure
New Mexico Energy, Minerals and Natural Resources Department
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

Re: Arnott Ramsay NCT-B Lease
 Arnott Ramsay NCT-B #8: API 30-025-26280
 Jalmat Pool: 33820
 Langlie Mattix Pool: 37240

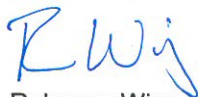
Dear Mr. McClure:

FAE II Operating LLC, as operator, will be filing applications with the New Mexico Oil Conservation Division for approval of the aforementioned commingling project. After a review of internal records, this letter serves as notice that the operator and interest owners are identical for the pools listed above.

If you have any questions, please feel free to contact the undersigned phone at (832) 219-0809 or by email at rebecca@faenergyus.com. Thank you for your attention to this matter.

Sincerely,

FAE II Operating, LLC



Rebecca Wing

Land

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November 20, 2020

VIA ONLINE FILING

Mr. Dean McClure
New Mexico Energy, Minerals and Natural Resources Department
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

Re: Application of FAE II Operating, LLC for Administrative Approval to Downhole Commingle and Sell Oil and Gas Production from the Langlie Mattix Pool for the Arnott Ramsay NCT-B #8 well located in Sec. 32, T-25S, R-37E, Lea County, New Mexico

Dear Mr. McClure:

FAE II Operating LLC, OGRID: 329326, requests administrative approval for downhole commingling of oil and gas production from the Langlie Mattix Pool for its Arnott Ramsay NCT-B #8 well located in Unit Letter N, Section 32, T-25S, R-37E, 660 feet FSL and 1,980 feet FWL, as shown in the attached C-102's for each zone.

The Arnott Ramsay NCT-B #8 is currently open to the Yates-Seven Rivers-Queen zone, which translates to both the JALMAT; TAN-YATES-7 RVRs pool [Pool ID: 79240]. The production curve for this zone is shown in Exhibit A. To develop a production forecast, a decline curve was utilized based on the well's historical production within the zone.

The other zone that has production history in the Arnott Ramsay NCT-B #8 is the Seven Rivers-Queen, which translates to the LANGLEIE MATTIX; 7 RVRs-Q-GRAYBURG [Pool ID: 37240]. To develop a production forecast, four (4) surrounding wells with historical production from the Seven Rivers-Queen were used as an offset by taking the average of the oil, gas, and water production. The resulting historical average production curve for this interval is shown in Exhibit B. From there, a decline curve was utilized based on the aforementioned historical production. Furthermore, Geology studied an Arnott Ramsay NCT-B #8 log, Attachment A, and also correlated it with other logs in the surrounding area to help determine the location of the new perforations in the Seven Rivers-Queen zone for the Arnott Ramsay NCT-B #8.

Overall, the forecast for the proposed downhole commingled production was formed by combining the forecasts for both zones, as shown in the Synthetic Decline Curve column of Exhibit D. This forecast for the Arnott Ramsay NCT-B #8 proved that an IP of 6.5 BOPD and 49 MCFPD is the expected total, and of that, 5.2 BOPD and 6 MCFPD will come from the Seven Rivers-Queen zone. The Yates-Seven Rivers is projected to yield 1.3 BOPD and 43 MCFPD with the additional intervals that will be opened up. This information along with the percentage allocation across the zones is shown in Exhibit D.

After a review of internal records, the interest owners are identical for the aforementioned wells. As such, notification to the relevant parties of our intent to commingle production will not be necessary.

This proposed commingling of production is in the interest of conservation and will not result in reduced royalty or improper measurement of production. If there are further questions concerning this application, please feel free to contact the undersigned by email at marshall@faenergyus.com or by telephone at (832) 241-8080.

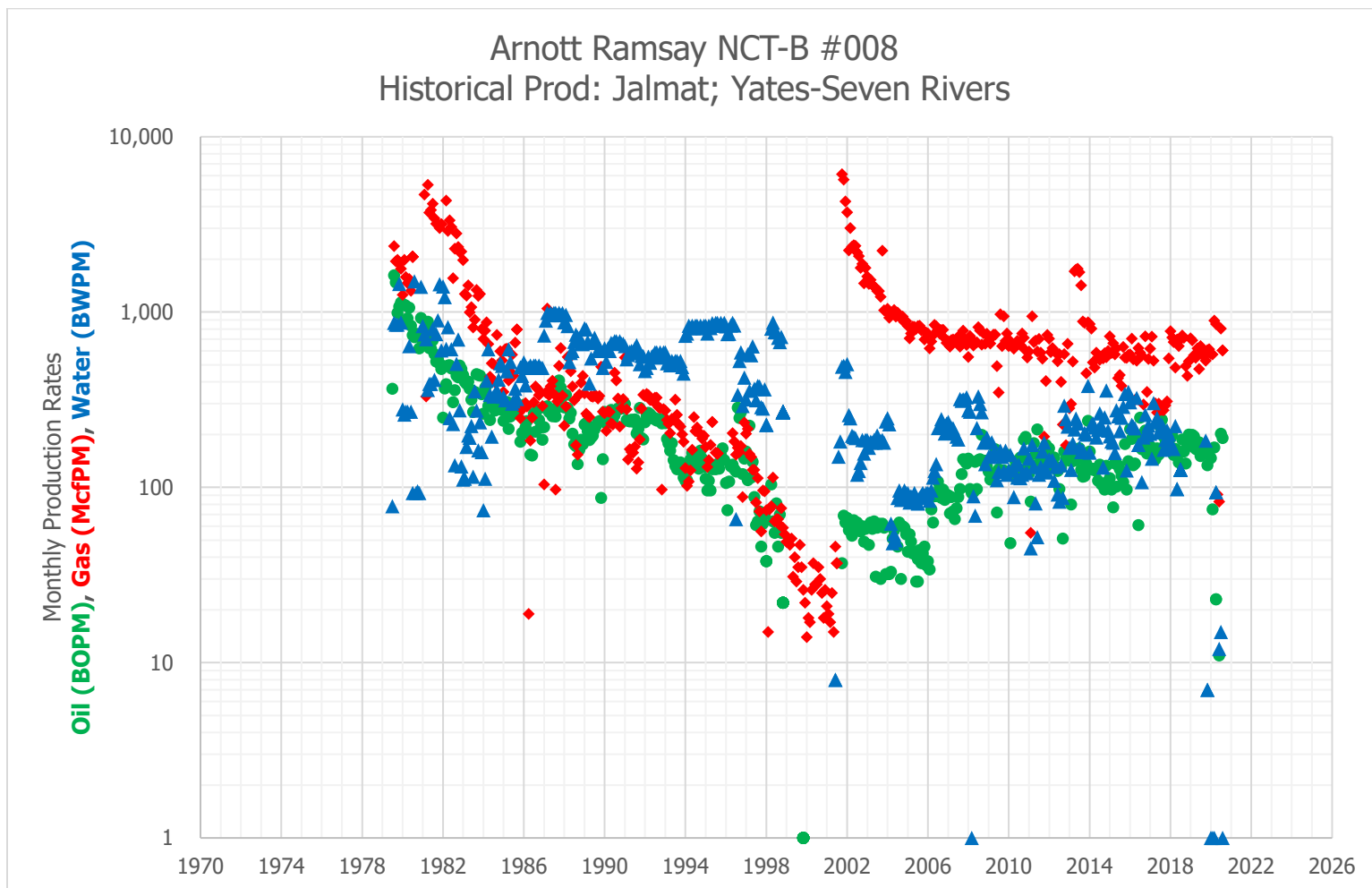
Very truly yours,



FAE II Operating, LLC

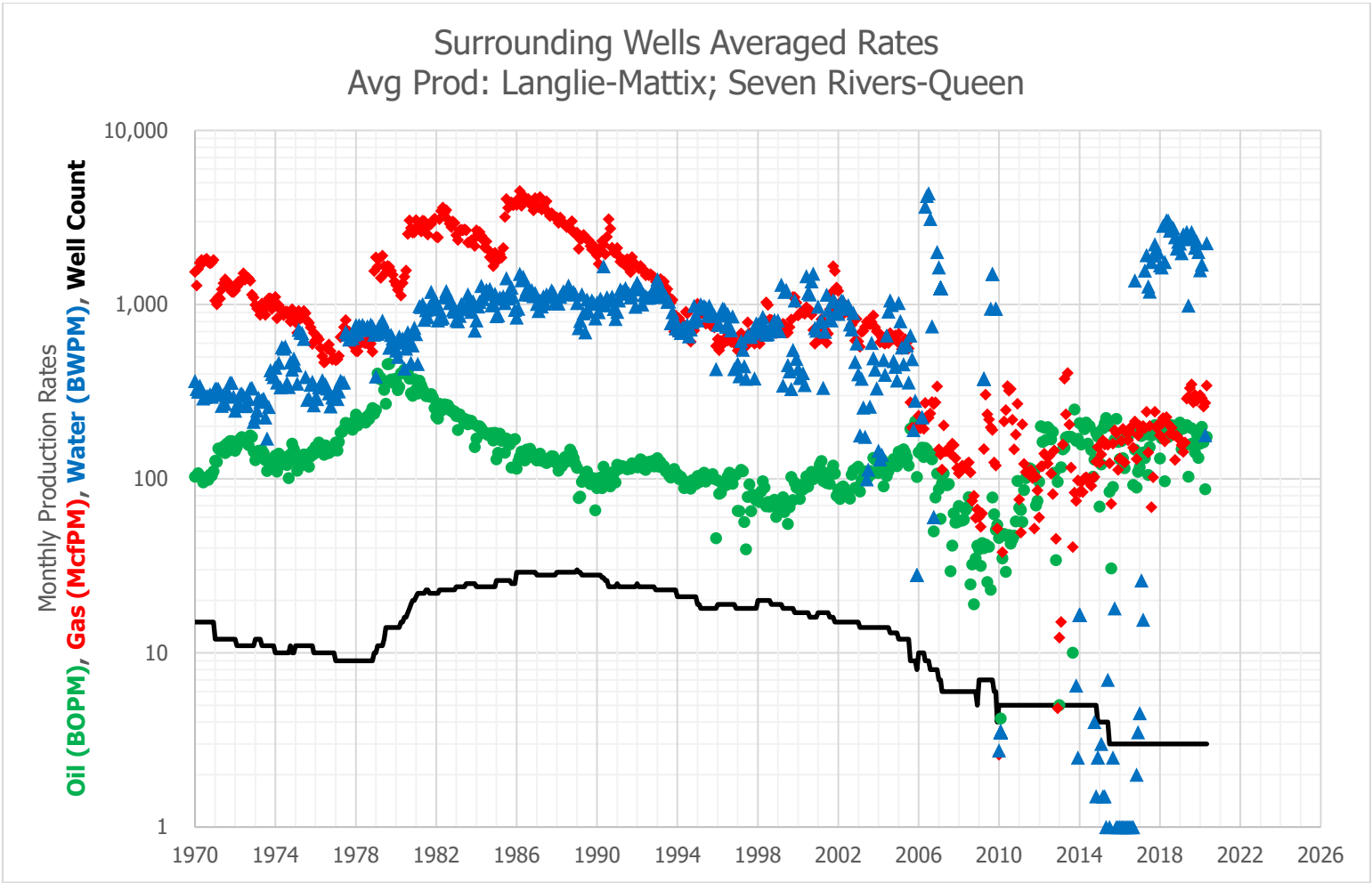
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Exhibit A – Historical and Forecast Production in the Current Zone



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Exhibit B – Historical Average Production in the Proposed Zone



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Exhibit C – Historical Production and Decline Curve

Surrounding Wells Averaged Rates					Arnett Ramsay NCT-B #008				Synthetic Decline Curve			
Avg Prod: Langlie-Mattix; Seven Rivers-Queen					Historical Prod: Jalmat; Yates-Seven Rivers							
Date	Avg Oil (BOPM)	Avg Gas (McfPM)	Avg Water (BWPM)	Well Count	Date	Avg Oil (BOPM)	Avg Gas (McfPM)	Avg Water (BWPM)	Month	Avg Oil (BOPM)	Avg Gas (McfPM)	Avg Water (BWPM)
1/1/2015	69	124	-	4	1/1/2015	113	726	196	1	198.9	1,489	1,345
2/1/2015	121	138	3	4	2/1/2015	97	585	183	2	197.9	1,485	1,340
3/1/2015	195	166	2	4	3/1/2015	77	665	180	3	197.0	1,482	1,336
4/1/2015	208	157	2	4	4/1/2015	137	574	157	4	196.0	1,478	1,331
5/1/2015	223	160	1	4	5/1/2015	101	621	276	5	195.1	1,474	1,327
6/1/2015	202	156	7	4	6/1/2015	134	420	255	6	194.2	1,471	1,323
7/1/2015	84	122	1	3	7/1/2015	127	437	209	7	193.2	1,467	1,318
8/1/2015	31	72	1	3	8/1/2015	117	379	250	8	192.3	1,463	1,314
9/1/2015	90	159	3	3	9/1/2015	107	632	288	9	191.4	1,460	1,310
10/1/2015	168	189	18	3	10/1/2015	177	551	341	10	190.5	1,456	1,305
11/1/2015	221	182	1	3	11/1/2015	97	549	125	11	189.6	1,452	1,301
12/1/2015	163	112	1	3	12/1/2015	141	570	351	12	188.7	1,449	1,297
1/1/2016	130	130	1	3	1/1/2016	215	574	306	13	187.8	1,445	1,293
2/1/2016	165	165	1	3	2/1/2016	189	705	227	14	186.9	1,442	1,288
3/1/2016	131	193	1	3	3/1/2016	134	539	222	15	186.0	1,438	1,284
4/1/2016	115	124	1	3	4/1/2016	137	316	217	16	185.1	1,434	1,280
5/1/2016	184	183	1	3	5/1/2016	199	528	324	17	184.2	1,431	1,276
6/1/2016	174	166	1	3	6/1/2016	61	624	175	18	183.3	1,427	1,272
7/1/2016	187	185	1	3	7/1/2016	250	586	-	19	182.5	1,424	1,267
8/1/2016	189	199	1	3	8/1/2016	165	565	107	20	181.6	1,420	1,263
9/1/2016	92	151	1	3	9/1/2016	168	297	193	21	180.7	1,417	1,259
10/1/2016	147	213	1,375	3	10/1/2016	211	727	259	22	179.8	1,413	1,255
11/1/2016	89	129	2	3	11/1/2016	156	350	199	23	179.0	1,409	1,251
12/1/2016	110	177	4	3	12/1/2016	171	540	226	24	178.1	1,406	1,247
1/1/2017	116	200	5	3	1/1/2017	172	618	202	25	177.3	1,402	1,243
2/1/2017	176	191	26	3	2/1/2017	161	724	146	26	176.4	1,399	1,238
3/1/2017	142	201	16	3	3/1/2017	160	529	303	27	175.6	1,395	1,234
4/1/2017	131	194	1,566	3	4/1/2017	144	301	235	28	174.8	1,392	1,230
5/1/2017	180	242	1,919	3	5/1/2017	167	267	249	29	173.9	1,389	1,226
6/1/2017	105	141	1,271	3	6/1/2017	154	300	206	30	173.1	1,385	1,222
7/1/2017	152	201	1,185	3	7/1/2017	222	277	206	31	172.3	1,382	1,218
8/1/2017	177	69	1,758	3	8/1/2017	243	277	227	32	171.4	1,378	1,214
9/1/2017	198	102	1,911	3	9/1/2017	195	276	164	33	170.6	1,375	1,210
10/1/2017	203	242	2,216	3	10/1/2017	177	294	186	34	169.8	1,371	1,206
11/1/2017	203	196	2,040	3	11/1/2017	173	310	212	35	169.0	1,368	1,202
12/1/2017	184	205	1,986	3	12/1/2017	177	544	201	36	168.2	1,364	1,198
1/1/2018	131	177	1,675	3	1/1/2018	191	777	181	37	167.4	1,361	1,194
2/1/2018	171	206	1,633	3	2/1/2018	199	717	171	38	166.6	1,358	1,190
3/1/2018	196	223	2,831	3	3/1/2018	153	674	166	39	165.8	1,354	1,187
4/1/2018	97	163	1,752	3	4/1/2018	166	482	224	40	165.0	1,351	1,183
5/1/2018	203	226	3,039	3	5/1/2018	163	699	98	41	164.2	1,347	1,179
6/1/2018	173	206	3,026	3	6/1/2018	139	641	-	42	163.4	1,344	1,175
7/1/2018	187	181	2,651	3	7/1/2018	158	698	126	43	162.6	1,341	1,171
8/1/2018	203	196	2,795	3	8/1/2018	188	735	-	44	161.9	1,337	1,167
9/1/2018	192	178	2,745	3	9/1/2018	160	713	-	45	161.1	1,334	1,163
10/1/2018	183	128	2,438	3	10/1/2018	137	492	-	46	160.3	1,331	1,160
11/1/2018	202	177	2,092	3	11/1/2018	173	433	-	47	159.5	1,327	1,156
12/1/2018	187	171	2,294	3	12/1/2018	200	524	-	48	158.8	1,324	1,152
1/1/2019	210	168	2,240	3	1/1/2019	173	708	-	49	158.0	1,321	1,148
2/1/2019	148	156	1,971	3	2/1/2019	199	690	-	50	157.3	1,317	1,144
3/1/2019	194	142	2,528	3	3/1/2019	196	567	-	51	156.5	1,314	1,141
4/1/2019	198	161	2,436	3	4/1/2019	166	549	-	52	155.8	1,311	1,137
5/1/2019	203	288	2,609	3	5/1/2019	164	622	-	53	155.0	1,308	1,133
6/1/2019	103	295	986	3	6/1/2019	181	473	-	54	154.3	1,304	1,129
7/1/2019	157	330	2,371	3	7/1/2019	151	641	-	55	153.5	1,301	1,126
8/1/2019	195	348	2,602	3	8/1/2019	165	577	-	56	152.8	1,298	1,122
9/1/2019	160	274	2,403	3	9/1/2019	164	557	-	57	152.1	1,295	1,118
10/1/2019	141	302	2,120	3	10/1/2019	162	529	185	58	151.4	1,291	1,115
11/1/2019	181	281	2,293	3	11/1/2019	134	608	7	59	150.6	1,288	1,111
12/1/2019	132	294	2,000	3	12/1/2019	152	613	-	60	149.9	1,285	1,107
1/1/2020	159	301	1,572	3	1/1/2020	147	579	1				
2/1/2020	198	290	1,693	3	2/1/2020	75	574	1				
3/1/2020	162	259	1	3	3/1/2020	169	895	1				
4/1/2020	87	272	178	3	4/1/2020	23	854	94				
5/1/2020	174	342	2,248	3	5/1/2020	-	91	-				
					6/1/2020	11	83	12				

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Exhibit D – Decline Curve IP Rates and Zone Allocation Percentage

Zone (1)	Zone (2)	Oil IP (BOPD)	Gas IP (MCFD)	Water IP (BWPD)
Jalmat	Yates-Seven Rivers	1.3	43	5
Langlie Mattix	Seven Rivers-Queen	5.2	6	40
	Total	6.5	49	45
Jalmat	Yates-Seven Rivers	19%	86%	11%
Langlie Mattix	Seven Rivers-Queen	81%	14%	89%
	Total (%)	100%	100%	100%

Attachment A - Well Log

30025262800000
FAE II Operating LLC

ARNOTT RAMSAY NCT-B 8
SPUD DATE : 4/26/1979
T25S R37E S32

Subsea
Depth(ft)
- 275 -

- 225 -

- 175 -

- 125 -

- 75 -

- 25 -

-25 -

-75 -

-125 -

-175 -

-225 -

-275 -

-325 -

-375 -

-425 -

-475 -

-525 -

-575 -

-625 -

Subsea
Depth(ft)
- 275 -

- 225 -

- 175 -

- 125 -

- 75 -

- 25 -

-25 -

-75 -

-125 -

-175 -

-225 -

-275 -

-325 -

-375 -

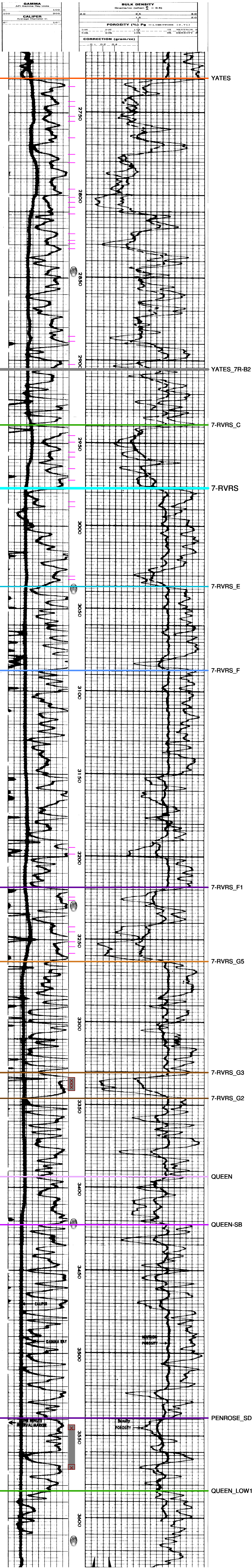
-425 -

-475 -

-525 -

-575 -

-625 -



District I
PO Box 1980, Hobbs, NM 88241-1980

District II
811 South First, Artesia, NM 88210

District III
1000 Rio Brazos Rd., Aztec, NM 87410

District IV
2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION
2040 South Pacheco
Santa Fe, NM 87505

Form C-102

Revised October 18, 1994

Instructions on back

Submit to Appropriate District Office

State Lease - 4 Copies

Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-025-26280	Pool Code 33820	Pool Name Jalmat (T-Y-7R) Oil
Property Code 326919	Property Name Arnott Ramsay NCT-B	Well Number 8
GRID No. 329326	Operator Name FAE II Operating, LLC	Elevation 2979' GR

Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West Line	County
N	32	25S	37E		660'	South	1980'	West	Lea

Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West Line	County

Dedicated Acres 40	Joint or Infill N	Consolidation Code	Order No.
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NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief

M Bates

Signature

Marshall Bates

Printed Name

Engineering Tech

Title

Date

11/23/20

SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

Date of Survey

Signature and Seal of Professional Surveyor:

Certificate Number

Arnott Ramsay NCT-B #8
660' FSL & 1980' FWL (N)
Sec. 32, T-25-S, R-37-E

District I
PO Box 1980, Hobbs, NM 88241-1980

District II
811 South First, Artesia, NM 88210

District III
1000 Rio Brazos Rd., Aztec, NM 87410

District IV
2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION
2040 South Pacheco
Santa Fe, NM 87505

Form C-102

Revised October 18, 1994

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Submit to Appropriate District Office

State Lease - 4 Copies

Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

1 API Number 30-025-26280	2 Pool Code 37240	3 Pool Name Langlie Mattix
4 Property Code 326919	5 Property Name Arnott Ramsay NCT-B	6 Well Number 8
7 OGRID No. 329326	8 Operator Name FAE II Operating, LLC	9 Elevation 2979' GR

10 Surface Location

UL or lot no. N	Section 32	Township 25S	Range 37E	Lot Idn	Feet from the 660'	North/South line South	Feet from the 1980'	East/West Line West	County Lea
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11 Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West Line	County
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12 Dedicated Acres 40	13 Joint or Infill N	14 Consolidation Code	15 Order No.
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NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

16				17 OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief <i>M Bates</i> Signature Marshall Bates Printed Name Engineering Tech Title Date 11/23/20
				18 SURVEYOR CERTIFICATION I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge OCB Date of Survey Signature and Seal of Professional Surveyor: Certificate Number

Arnott Ramsay NCT-B #8
660' FSL & 1980' FWL (N)
Sec. 32, T-25-S, R-37-E